IN THE CLAIMS:

The status and content of each claim follows.

1. (original) A display system for displaying an image, comprising:

an image processing unit configured to process image data and generate a number of image sub-frames corresponding to said image data;

a modulator configured to modulate a light beam according to said image sub-frames;

a scrolling color device configured to scroll a plurality of colors across a face of said modulator to produce a color light beam bearing said number of image sub-frames;

display optics configured to display said image from said color light beam; and

a wobbling device configured to displace said color light beam such that said image sub-frames are displayed with varying spatial offsets.

2. (original) The system of claim 1, wherein said scrolling color device scrolls said plurality of colors across said face of said modulator an integer number of times during an image sub-frame time period corresponding to said each of said number of image sub-frames.

3. (original) The system of claim 2, wherein said integer number of times is one.

4. (original) The system of claim 2, further comprising a system timing unit configured to synchronize said scrolling color device and said wobbling device such that said scrolling color device scrolls said plurality of colors across said face of said modulator an

integer number of times during an image sub-frame time period corresponding to said each of said number of image sub-frames.

5. (original) The system of claim 4, wherein said system timing unit is integrated into said image processing unit.

6. (original) The system of claim 1, wherein said number of image sub-frames comprises a first image sub-frame and a second image sub-frame.

7. (original) The system of claim 6, wherein said wobbling device is further configured to displace said color light beam such that said second image sub-frame is displayed in a second image sub-frame location offset by an offset distance from a first image sub-frame location of said first image sub-frame.

8. (original) The system of claim 7, wherein said offset distance comprises a vertical offset distance and a horizontal offset distance, said second image sub-frame location being vertically offset from said first image sub-frame location by said vertical offset distance and horizontally offset from said first image sub-frame location by said horizontal offset distance.

9. (original) The system of claim 8, wherein said vertical offset distance and said horizontal offset distance are substantially equal to one-half of a pixel.

10. (original) The system of claim 7, wherein said offset distance comprises a vertical offset distance, said second image sub-frame location being vertically offset from said first image sub-frame location by said vertical offset distance.

11. (original) The system of claim 10, wherein said vertical offset distance is substantially equal to one-half of a pixel.

12. (original) The system of claim 7, wherein said offset distance comprises a horizontal offset distance, said second image sub-frame location being horizontally offset from said first image sub-frame location by said horizontal offset distance.

13. (original) The system of claim 12, wherein said horizontal offset distance is substantially equal to one-half of a pixel.

14. (original) The system of claim 6, wherein said scrolling color device scrolls said plurality of colors across said face of said modulator an integer number of times during a first image sub-frame time period corresponding to said first image sub-frame and during a second image sub-frame time period corresponding to said second image sub-frame.

15. (original) The system of claim 1, wherein said number of image sub-frames comprises:

a first image sub-frame;

a second image sub-frame;

a third image sub-frame; and

a fourth image sub-frame.

16. (original) The system of claim 15, wherein said wobbling device is further configured to displace said color light beam such that:

said second image sub-frame is displayed in a second image sub-frame location offset by a first offset distance from a first image sub-frame location of said first image sub-frame;

said third image sub-frame is displayed in a third image sub-frame location offset by a second offset distance from said second image sub-frame location of said second image sub-frame; and

said fourth image sub-frame is displayed in a fourth image sub-frame location offset by a third offset distance from said third image sub-frame location of said third image sub-frame.

17. (original) The system of claim 16, wherein:

said first offset distance comprises a vertical offset distance and a horizontal offset distance, said second image sub-frame location being vertically offset from said first image sub-frame location by said vertical offset distance and horizontally offset from said first image sub-frame location by said horizontal offset distance;

said second offset distance comprises said vertical offset distance, said third image sub-frame location being vertically offset by said vertical offset distance from said second image sub-frame location; and

said third offset distance comprises said vertical offset distance and said horizontal offset distance, said fourth image sub-frame location being vertically offset from said third

image sub-frame location by said vertical offset distance and horizontally offset from said third image sub-frame location by said horizontal offset distance.

18. (original) The system of claim 17, wherein said vertical offset distance and said horizontal offset distance are substantially equal to one-half of a pixel.

19. (original) The system of claim 15, wherein said scrolling color device scrolls said plurality of colors across said face of said modulator an integer number of times during a first image sub-frame time period corresponding to said first image sub-frame, during a second image sub-frame time period corresponding to said second image sub-frame, during a third image sub-frame time period corresponding to said third image sub-frame, and during a fourth image sub-frame time period corresponding to said fourth image sub-frame.

20. (original) The system of claim 1, wherein said image processing unit comprises a sub-frame generation function configured to generate said number of image sub-frames.

21. (original) The system of claim 1, wherein said modulator comprises a liquid crystal on silicon (LCOS) array.

22. (original) The system of claim 1, wherein said modulator comprises a micromirror array.

23. (original) The system of claim 1, wherein said wobbling device comprises a galvanometer mirror.

24. (original) The system of claim 1, wherein said scrolling color device comprises rotating prisms.

25. (original) The system of claim 1, wherein said scrolling color device comprises a color wheel.

26. (original) The system of claim 1, wherein said plurality of colors comprises red, green, and blue.

27. (original) The system of claim 1, wherein said plurality of colors comprises red, yellow, green, cyan, and blue.

28. (original) A display system for displaying an image based upon image data, comprising:

an image processing unit configured to define a plurality of sub-frame images including a first sub-frame image and at least a second sub-frame image based upon said image data;

a scrolling color device configured to generate a scrolling color light beam comprising a plurality of colors;

a spatial light modulator disposed to receive and modulate said scrolling color light beam based upon said plurality of sub-frame images; and

a wobbling device configured to cause said sub-frame images to be displayed in an alternating manner such that said first sub-frame image is spatially offset from said second sub-frame image.

29. (original) The system of claim 28, wherein said spatial light modulator comprises:

a face comprising an array of controllable pixel elements;

wherein said scrolling color light beam scrolls segments of said plurality of colors across said controllable pixel elements.

30. (original) The system of claim 29, wherein said image is displayed during a frame period, said frame period being divided into a plurality of sub-frame time periods corresponding to said plurality of sub-frame images, wherein said scrolling color device scrolls each of said plurality of colors across each of said controllable pixel elements during each of said plurality of sub-frame time periods.

31. (original) The system of claim 28, wherein said scrolling color device scrolls each of said plurality of colors across each of said controllable pixel elements during a scrolling time period, said wobbling optics maintaining constant positions during a sub-frame time period , and wherein said scrolling time period and said sub-frame time period are related by an integer multiple.

32. (original) The system of claim 29, further comprising a system timing unit configured to synchronize said scrolling color device and said wobbling device such that

said scrolling color device scrolls said segments of said plurality of colors across said controllable pixel elements an integer number of times during an image sub-frame time period corresponding to said each of said number of image sub-frames.

33. (original) The system of claim 31, wherein said sub-frame time period equals an integer multiplied by said scrolling time period.

34. (currently amended) A display system for displaying an image during an image frame period based upon image frame data defining an image frame, comprising:

image processing electronics configured to generate a plurality of sub-frame data arrays based on said frame data, each of said sub-frame data arrays defining each of separate sub-frame images during said frame period;

a spatial light modulator configured to generate a light beam based on said sub-frame data arrays;

a scrolling color device configured to scroll a plurality of colors simultaneously across said spatial light modulator during said generation of said light beam; and

a wobbling device configured to provide a relative displacement of each of said sub-frame images during said frame period.

35. (original) The system of claim 34, further comprising a system timing unit configured to synchronize said spatial light modulator, said scrolling color device, and said wobbling device with respect to each other.

36. (original) The system of claim 34, wherein each sub-frame image is displayed during a sub-frame period, wherein said scrolling color device scrolls said plurality of colors across said light modulator at least once during said sub-frame period.

37-39. (cancelled)

40. (currently amended) A method of displaying an image, said method comprising:

processing image data defining said image and generating a number of image sub-frames corresponding to said image data;

generating a light beam bearing said number of image sub-frames with a modulator;

scrolling a plurality of primary colors across a face of said modulator during said generation of said light beam such that said light beam comprises a color light beam bearing said number of image sub-frames, wherein a band of each of said primary colors is incident simultaneously on said face of said modulator during said scrolling;

displaying said color light beam to form said image; and

displacing said color light beam such that each of said number of image sub-frames is spatially displayed in an image sub-frame location offset from others of said image sub-frames.

41. (original) The method of claim 40, wherein said step of scrolling said plurality of colors across said face of said modulator further comprises scrolling said plurality of colors across said face of said modulator an integer number of times during an image sub-frame time period corresponding to said each of said number of image sub-frames.

42. (original) The method of claim 41, wherein said integer number of times is one.

43. (original) The method of claim 41, further comprising synchronizing said step of scrolling said plurality of colors across said face of said modulator and said step of displacing said color light beam such that said plurality of colors is scrolled across said face of said modulator an integer number of times during an image sub-frame time period corresponding to said each of said number of image sub-frames.

44. (original) The method of claim 40, wherein said number of image sub-frames comprises a first image sub-frame and a second image sub-frame.

45. (original) The method of claim 44, wherein said step of displacing said color light beam further comprises displacing said color light beam such that said second image sub-frame is displayed in a second image sub-frame location offset by an offset distance from a first image sub-frame location of said first image sub-frame.

46. (original) The method of claim 45, wherein said offset distance comprises a vertical offset distance and a horizontal offset distance, said second image sub-frame location being vertically offset from said first image sub-frame location by said vertical offset distance and horizontally offset from said first image sub-frame location by said horizontal offset distance.

47. (original) The method of claim 46, wherein said vertical offset distance and said horizontal offset distance are substantially equal to one-half of a pixel.

48. (original) The method of claim 45, wherein said offset distance comprises a vertical offset distance, said second image sub-frame location being vertically offset from said first image sub-frame location by said vertical offset distance.

49. (original) The method of claim 48, wherein said vertical offset distance is substantially equal to one-half of a pixel.

50. (original) The method of claim 45, wherein said offset distance comprises a horizontal offset distance, said second image sub-frame location being horizontally offset from said first image sub-frame location by said horizontal offset distance.

51. (original) The method of claim 50, wherein said horizontal offset distance is substantially equal to one-half of a pixel.

52. (original) The method of claim 44, wherein said step of scrolling said plurality of colors across said face of said modulator further comprises scrolling said plurality of colors across said face of said modulator an integer number of times during a first image sub-frame time period corresponding to said first image sub-frame and during a second image sub-frame time period corresponding to said second image sub-frame.

53. (original) The method of claim 40, wherein said number of image sub-frames comprises:

a first image sub-frame;

a second image sub-frame;

a third image sub-frame; and

a fourth image sub-frame.

54. (original) The method of claim 53, wherein said step of displacing said color light beam further comprises displacing said color light beam such that:

said second image sub-frame is displayed in a second image sub-frame location offset by a first offset distance from a first image sub-frame location of said first image sub-frame;

said third image sub-frame is displayed in a third image sub-frame location offset by a second offset distance from said second image sub-frame location of said second image sub-frame; and

said fourth image sub-frame is displayed in a fourth image sub-frame location offset by a third offset distance from said third image sub-frame location of said third image sub-frame.

55. (original) The method of claim 54, wherein:

said first offset distance comprises a vertical offset distance and a horizontal offset distance, said second image sub-frame location being vertically offset from said first image sub-frame location by said vertical offset distance and horizontally offset from said first image sub-frame location by said horizontal offset distance;

said second offset distance comprises said vertical offset distance, said third image sub-frame location being vertically offset by said vertical offset distance from said second image sub-frame location; and

said third offset distance comprises said vertical offset distance and said horizontal offset distance, said fourth image sub-frame location being vertically offset from said third image sub-frame location by said vertical offset distance and horizontally offset from said third image sub-frame location by said horizontal offset distance.

56. (original) The method of claim 55, wherein said vertical offset distance and said horizontal offset distance are substantially equal to one-half of a pixel.

57. (original) The method of claim 53, wherein said step of scrolling said plurality of colors across said face of said modulator further comprises scrolling said plurality of colors across said face of said modulator an integer number of times during a first image sub-frame time period corresponding to said first image sub-frame, during a second image sub-frame time period corresponding to said second image sub-frame, during a third image sub-frame time period corresponding to said third image sub-frame, and during a fourth image sub-frame time period corresponding to said fourth image sub-frame.

58. (original) The method of claim 40, wherein said modulator comprises a liquid crystal on silicon (LCOS) array.

59. (original) The method of claim 40, wherein said modulator comprises a micromirror array.

60. (original) The method of claim 40, wherein said plurality of colors comprises red, green, and blue.

61. (original) The method of claim 40, wherein said plurality of colors comprises red, yellow, green, cyan, and blue.

62-67. (cancelled)

68. (currently amended) A system for displaying an image, said system comprising:

processing means for processing image data defining said image and generating a number of image sub-frames corresponding to said image data;

modulation means for generating a light beam bearing said number of image sub-frames;

scrolling means for scrolling a plurality of primary colors across a face of said modulation means during said generation of said light beam such that said light beam comprises a color light beam bearing said number of image sub-frames, wherein a band of each of said primary colors is incident simultaneously on said face of said modulator during said scrolling;

display means for displaying said color light beam to form said image; and

displacement means for displacing said color light beam such that each of said number of image sub-frames is spatially displayed in an image sub-frame location offset from others of said image sub-frames.

69. (original) The system of claim 68, wherein scrolling means scrolls said plurality of colors across said face of said modulator an integer number of times during an image sub-frame time period corresponding to said each of said number of image sub-frames.

70. (original) The system of claim 68, further comprising means for synchronizing said scrolling means and said displacement means such that said plurality of colors is scrolled across said face of said modulation means an integer number of times during an image sub-frame time period corresponding to said each of said number of image sub-frames.